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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,818	05/29/2002	Hermanus Johannes Waanders	220664US6PCT	9369

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EXAMINER

MACARTHUR, VICTOR L

ART UNIT PAPER NUMBER

3679

DATE MAILED: 06/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

10/070,818

Applicant(s)

WAANDERS, HERMANUS  
JOHANNES

Examiner

Victor MacArthur

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-3 and 5-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Claim Objections*

Claims 9 and 18 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 9 and 18 depend from claims 1 and 11 respectively, thus containing all of the limitations of claims 1 and 11. Claims 9 and 18 do not add any **additional** structural limitations but only restate elements already present in claims 1 and 11 respectively.

Claim 18 is objected to because of the following informalities:

The phrase “according to claim 1” in line 3 of claim 18 appears to be a typographical error since elements within claim 18 would lack proper antecedent basis in claim 1 (i.e. first plate, second plate). The examiner suggests replacing the above-mentioned phrase with “according to claim 11” in order to overcome this objection. For purposes of examination claim 18 is assumed to depend from claim 11 rather than claim 1.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-3, 5-9 and 11-18 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 4290574 to Archibald.

1 and 9. Archibald discloses (figs.1, 4, 5) an assembly comprising a first object (26, 28), and a second object (10) and support means for supporting the first object above the second object, the support means including first, second and third protrusions (32, 34, 36), protruding from the first object and first (20), second (two out of the three 18) and third (22 and remaining portion of 18) pairs of protrusions protruding from the second object, the first, second and third protrusions of the first object and each protrusion of the first, second and third pairs of protrusions of the second object have an end (18, 20, 22) with a **virtually** sphere-segment shaped extremity, and wherein when the first and second objects are in an operational position so that the first object is above the second object, then the virtually sphere-segment shaped extremities of the first, second, and third protrusions of the first object are in contact with the virtually sphere-segment shaped extremities of the first, second and third pairs of protrusions, respectively, of the second object (col.3-4). The examiner notes that the claim language of the applicant does not state that protrusions of the second object are spherical in shape only that the protrusions are “virtually sphere-segment shaped”. Archibald meets this limitation since the protrusions (18, 20, 22) could almost be, or “virtually” be, “segments” within a sphere.

2. Archibald discloses (fig.5) that the virtually sphere-segment shaped extremity of each of the first, second, and third protrusions of the first object has a center and together the centers of the virtually sphere-segment shaped extremities of the first, second and third protrusions of the first object define vertices of a first triangle.

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3. Archibald discloses (figs. 4 and 5) that the virtually sphere-segment shaped extremity of each protrusion of the first, second and third pairs of protrusions of the second object has a center such that midpoints of connecting lines between the centers of the virtually sphere-segment shaped extremities of each pair of protrusions of the first, second and third pairs of protrusions define vertices of a second triangle, the second triangle being substantially identical to the first triangle defined by the centers of the virtually sphere-segment shaped extremities of the first, second and third protrusions of the first object.

5 and 6. Archibald discloses metal balls (32, 34, 36, 18) of **virtually** (nearly) equal diameter being partially embedded into either the first object or the second object. Archibald does not disclose that the protrusions are formed by metal balls. However, the specific method of forming is not germane to the issue of patentability of the device itself. Therefore, this limitation has been given limited patentable weight. See MPEP § 2113.

7. Archibald discloses (figs. 1, 4 and col.2, ll.63-68) the assembly further comprises fastening means (14, 30) for mutually fastening the first and second objects in the operational positions thereof (the weight of 30 acts to clamp the first and second objects together on top of the tripod 16, thereby “fastening” the first and second objects within the broadest reasonable interpretation of the claim language).

8. Archibald discloses that the fastening means (14, 30) include a screwed connection (threaded post and nut) provided for the mutual fastening of the combined objects. (The examiner notes that the objects of Archibald are attached to one another such that fastening of one object to the tripod has the effect of fastening both objects).

11 and 18. Archibald discloses (figs. 1, 4 and 5) an assembly comprising: a first plate (26, 28) supported above a second plate (10) supporting members configured to support the first plate above the second plate, the supporting members including first (32) second (34) and third (36) protrusions protruding from the first plate and first (20), second (two out of the three 18) and third (22 and remaining portion of 18) pairs of protrusions protruding from the second plate, wherein each protrusion of the first, second and third protrusions of the first plate and each protrusion of the first, second and third pairs of protrusions of the second plate have an end with **virtually** sphere-segment shaped extremity, and wherein when the first and second plates are in an operational position so that the first plate is above the second plate, then the virtually sphere-segment shaped extremities of the first, second and third protrusions of the first plate are in contact with the virtually sphere-segment shaped extremities of the first, second and third pairs of protrusions, respective, of the second plate.

12. Archibald discloses that the virtually sphere-segment shaped extremity of each of the first, second and third protrusions of the first plate has a center and together the centers of the virtually sphere-segment shaped extremities of the first, second and third protrusions of the first plate define vertices of a first triangle.

13. Archibald discloses that the virtually sphere-segment shaped extremity of each protrusion of the first, second and third pairs of protrusions of the second plate has a center such that midpoints of connecting lines between the centers of the virtually sphere-segment shaped extremities of each pair of protrusions of the first, second and third pairs of protrusions define vertices of a second triangle, the second triangle being **substantially** identical to the first triangle

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defined by the centers of the virtually sphere-segment shaped extremities of the first, second and third protrusions of the first plate.

14 and 15. Archibald discloses metal balls (32, 34, 36, 18) of **virtually** (nearly) equal diameter being partially embedded into either the first object or the second object. Archibald does not disclose that the protrusions are formed by metal balls. However, the specific method of forming is not germane to the issue of patentability of the device itself. Therefore, this limitation has been given limited patentable weight. See MPEP § 2113.

16. Archibald discloses (figs. 1, 4 and col.2, ll.63-68) the assembly further comprises fastening member (14, 30) for mutually fastening the first and second objects in the operational positions thereof.

17. Archibald discloses that the fastening means (14, 30) include a screwed connection (threaded post and nut) provided for the mutual fastening of the combined objects. (The examiner notes that the objects of Archibald are attached to one another such that fastening of one object to the tripod has the effect of fastening both objects).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim10 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4290574 to Archibald in view of USPN 5416969 to Miura.

10. Archibald discloses (figs. 1, 4, 5) a method for supporting a first object (26) on a second object (10), wherein a center of each of first, second and third metal balls (32, 34, 36) of the first object defines a vertex of a first triangle; wherein a ball-shaped extremity of each ball of a first (20), second (two out of the three 18) and third (22 and remaining portion of 18) pairs of balls has a center and midpoints between connecting lines connecting the centers of each pair of balls of the first, second and third pairs of balls define vertices of a second triangle which is **virtually** identical to the first triangle; and placing the ball-shaped extremity of each of the first, second and third balls of the first object into supporting contact on the ball-shaped extremities of the first, second and third pairs of balls respectively of the second object. Archibald does not explicitly disclose that all of the protrusions are metal balls or that the protrusions are secured by making holes into the first and second objects and then fitting the balls and protrusions into the holes. Miura teaches (figs.3, 9a, 9b) making holes (16, 18a) in an object (12) and then fitting metal balls (6) into the holes. Miura states (col.6, ll.27-29) that protrusions that are metal balls, when fit within holes of an object, provide for a large contact area between the protrusion and the object. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the method of Archibald such that all of the protrusions are metal balls and all metal balls are secured by making holes into the first and second objects and then fitting the metal balls into the holes. Motivation to do so comes from Miura's teaching to increase contact area between protrusions and objects. Furthermore, combining the teachings of Archibald and Miura in the manner described above would necessarily comprise the steps of making first, second and third indentations in the first object; subsequently fitting first, second and third metal balls each having a ball-shaped extremity into the first, second and third



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indentations respectively in the first object and making first, second and third pairs of indentations in the second object; subsequently fitting a ball-shaped extremity of each of the first second and third pairs of metal balls into the first, second and third pairs of indentations, respectively, made in the second object.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

The examiner acknowledges the applicant's comments regarding the prior art with respect the amended claims filed on 4/9/03.

The applicant argues that Archibald does not disclose a second plate with first, second and third pairs of protrusions. More specifically that protrusions 18 and 22 do not constitute two pairs of protrusions. This is not persuasive since 18 is composed of three protrusions and 22 is composed of one protrusion and 20 is composed of two protrusions. Elements 18, 20 and 22 are all similar and associated in that they are all protrusions on the second plate (10). Thus the second plate has a total of 6 protrusions. The word "pair" is taken by the examiner to mean "two similar or associated things" in accordance with Merriam-Webster's Collegiate Dictionary Tenth Edition. Therefore the six protrusions of Archibald comprise three pairs of protrusions within the broadest reasonable interpretation of the claim language.

*Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor MacArthur whose telephone number is (703) 305-5701. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (703) 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

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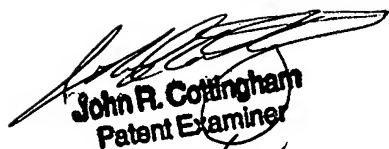
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June 25, 2003

  
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